

designated the United States and which was not published in
the English language.

In the Claims:

Claim 1 (amended). A semiconductor component, comprising:

a semiconductor body of a first conductivity type, said semiconductor body having a first doping concentration greater than 5×10^{13} charge carriers cm^{-3} and having a first surface and a second surface, said first and second surfaces being provided opposite from one another;

at least a first electrode disposed on said first surface and at least a second electrode disposed on said second surface;

a semiconductor zone of a second conductivity type opposite to the first conductivity type;

a pn-junction formed between said semiconductor zone of the second conductivity type and said semiconductor body;

at least one of said first and second electrodes being in contact with said semiconductor zone of the second conductivity type;

semiconductor regions of the second conductivity type provided in said semiconductor body;

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said semiconductor regions being disposed at a respective distance from said semiconductor zone of the second conductivity type such that said semiconductor regions surround said semiconductor zone of the second conductivity type in a well-shape;

each one of said semiconductor regions being interrupted at at least one location by channels formed by said semiconductor body; and

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said semiconductor regions of the second conductivity type having a second doping concentration such that said semiconductor regions are not completely depleted of charge carriers in case of a reverse-biasing of said pn-junction.

Claim 2 (amended). The semiconductor component according to claim 1, wherein each one of said semiconductor regions of the second conductivity type are interrupted at a plurality of locations by said channels formed by said semiconductor body for increasing a reverse voltage.

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Claim 11 (amended). A semiconductor configuration, comprising:

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a semiconductor component selected from the group consisting of a diode, a MOS transistor and a thyristor;

said semiconductor component including:

a semiconductor body of a first conductivity type, said semiconductor body having a first doping concentration greater than 5×10^{13} charge carriers cm^{-3} and having a first surface and a second surface, said first and second surfaces being provided opposite from one another;

at least a first electrode disposed on said first surface and at least a second electrode disposed on said second surface;

a semiconductor zone of a second conductivity type opposite to the first conductivity type;

a pn-junction formed between said semiconductor zone of the second conductivity type and said semiconductor body;

at least one of said first and second electrodes being in contact with said semiconductor zone of the second conductivity type;

semiconductor regions of the second conductivity type provided in said semiconductor body;

said semiconductor regions being disposed at a respective distance from said semiconductor zone of the second conductivity type such that said semiconductor regions surround said semiconductor zone of the second conductivity type in a well-shape;

each one of said semiconductor regions being interrupted at at
least one location by channels formed by said semiconductor
body; and

said semiconductor regions of the second conductivity type
having a second doping concentration such that said
semiconductor regions are not completely depleted of charge
carriers in case of a reverse-biasing of said pn-junction.

Enter The Following New Claims:

-- 12. A semiconductor component, comprising:

a semiconductor body having a semiconductor layer of a first
conductivity type with a doping concentration greater than $5 \times$
 10^{13} charge carriers cm^{-3} ;

a semiconductor zone of a second conductivity type opposite to
said semiconductor layer of said first conductivity type;

a pn-junction formed between said semiconductor zone and said
semiconductor layer; and

semiconductor regions of the second conductivity type in said
semiconductor body, said semiconductor regions surrounding
said semiconductor zone at a respective distance except for a
channel formed of said semiconductor layer, said semiconductor
regions having a doping concentration preventing completely

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depleted of charge carriers upon a reverse-biasing of said pn-junction.

13. The semiconductor component according to claim 12, wherein said channel is one of a plurality of channels for increasing a reverse voltage.

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14. The semiconductor component according to claim 12, wherein said channel is configured such that electric field spikes are avoided when a reverse voltage is applied between said semiconductor zone and said semiconductor body.

15. The semiconductor component according to claim 12, wherein said semiconductor body has a drift region and said channel is provided in said drift region.

16. The semiconductor component according to claim 12, wherein said semiconductor body has an edge region and said channel is provided in said edge region.

17. The semiconductor component according to claim 12, wherein said semiconductor body has an edge zone and an insulating zone is provided for shielding charge carriers from said edge zone.

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18. The semiconductor component according to claim 12,
wherein said semiconductor body has a first surface and a
second surface, one of said first and second surfaces
surrounds said semiconductor zone of the second conductivity
type, and field plates are provided on said one of said first
and second surfaces.

19. The semiconductor component according to claim 12,
wherein said semiconductor body has an edge, and a doped guard
ring zone of the first conductivity type surrounds said edge.

20. The semiconductor component according to claim 12,
wherein the first conductivity type is an n-conductivity type.
